

REMARKS

This Amendment is filed in response to the Office Action mailed on December 1, 2004. All objections and rejections are respectfully traversed.

Claims 1-21 are in the case.

No Claims were amended.

No Claims were added.

Applicant is in receipt of two (2) Office Actions in the above referenced Application for United States Patent, one for claims 1-21 rejecting claims over cited patents, and the other Office Action for claims 1-14 and issuing a Restriction Requirement. Both Office Actions have the mailing date of December 1, 2004.

Applicant believes that the Office Action for claims 1-14 and reciting a Restriction Requirement was issued by the USPTO in error. Accordingly, Applicant traverses all of the restriction requirements in this Office Action.

Applicant believes that the Office Action for claims 1-21 was correctly issued by the USPTO, and accordingly, Applicant responds to the rejections in this Office Action.

At Page 2 of the Office Action, at Paragraphs 2- et al. Claims 1, 2, 4, 6, and 10-12 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Jorgensen et al. U. S. Patent No. 6,640,248 issued October 28, 2003 (hereinafter Jorgensen) in view of REF McCloghire et al. U. S. Patent No. 6,286,0552 issued September 4, 2001 (hereinafter McCloghire).

Applicant's claimed invention, as set out in representative Claim 1, comprises in part:

1. (Original) An intermediate network device for use in a computer network having a plurality of entities configured to issue requests to reserve network resources for use by traffic flows, the reservation requests specifying one or more flow parameters, the intermediate network device comprising:
 - a traffic scheduler having one or more network resources for use in forwarding network traffic received at the device at different rates;
 - a classification engine configured to identify network messages belonging to respective traffic flows based upon predefined criteria;
 - a resource reservation engine in communicating relationship with the traffic scheduler and the classification engine, the resource reservation engine including a flow analyzer; and

one or more sets of predefined heuristics that are accessible by the flow analyzer, wherein

the flow analyzer applies the one or more sets of predefined heuristics to the one or more flow parameters specified in the reservation requests, and

in response to the application of the one or more sets of predefined heuristics, the flow analyzer selects a queue and/or a queue servicing algorithm for assignment to the traffic flow corresponding to the reservation request.

The use of heuristics, as set out in Claim 1, are further described in Applicant's Specification at Page 15 Line 6 -- Page 16 Line 7 as:

"First, the RSVP engine 424 searches its RSVP session table 700 to identify the matching entry, e.g., entry 716a, for this Resv message, as indicated at block 618 (Fig. 6B). The RSVP engine 424 identifies the matching entry by looking for an entry of table 700 whose source address, source port, destination address, destination port and protocol match those contained in the received Resv message. As described above, a separate entry 716 of table 700 is established for each session. Next, the RSVP engine 424 provides the flow parameters contained in the flow spec object 806 to the flow analyzer 432 for evaluation based on one or more sets of predefined heuristics from the heuristics store 434, as indicated by block 620. In the illustrative embodiment, the heuristics store 434 is preprogrammed with a single set of heuristics used to determine whether or not the respective traffic flow is a real-time voice flow. This set of heuristics preferably takes the form of the following equation:

$$(r \leq r') \text{ AND } (b \leq b') \text{ AND } \frac{p}{r} \leq p_to_r'$$

where,

r = token bucket rate (from field 842 of the flow spec object 806),

b = token bucket size (from field 844 of the flow spec object 806),

p = peak data rate (from field 846 of the flow spec object 806), and

r' is a programmable token bucket rate constant, preferably having a default value of 12288 bytes/second, b' is a programmable token bucket size constant, preferably having a default value of 592 bytes/second, and p_to_r' is the ratio of peak data rate to token bucket rate constant, preferably having a default value of 110%, i.e., 1.10.

The flow analyzer 432 determines whether the respective values from the flow spec object 806 satisfy the above set of heuristics, as indicated at decision block 622. If they do, the flow analyzer 432 "concludes" that the corresponding traffic flow will be carrying real-time voice traffic, as indicated by block 624. The flow analyzer 432 then selects and assigns an appropriate queue and/or queue servicing algorithm or selection strategy to the real-time voice traffic flow, as indicated at block 626. For example, as real-time voice traffic must be delivered with minimal delay and minimal packet loss, the flow analyzer 432 preferably selects the PQ for association with the traffic flow from voice agent 202 to voice agent 204."

(Applicant's Specification at Page 15 Line 6 -- Page 16 Line 7)

Jorgensen discloses a quality of service method in which a resource allocator schedules wireless bandwidth for an IP flow. The resource allocator takes into account IP flow identification extracted from at least one packet header field.. The resource allocator allocates switching resource to an application based on application type, such as a priority class of the IP flow.

Applicant respectfully urges that McCloghrie is precluded under 35 U.S.C. § 103(c) as a reference under 35 U.S.C. § 103(a) against the present Application for U. S. Patent. McCloghrie and the present invention were both owned by Cisco Technology, Inc. at the time that the invention was made.

The statute 35 U.S.C. § 103(c) states as follows:

“Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.”

The present application was assigned to Cisco Technology, Inc. by Assignment recorded at Reel/Frame 012005 / 0481 on 07/23/2001

McCloghrie was assigned to Cisco Technology, Inc. by Assignment recorded at Reel/Frame 009651 / 0161 on 12/04/1998.

Filing date of the present Application: 06/29/2001.

Filing date of cited art, McCloghrie: December 4, 1998.

Issue date of cited art, McCloghrie: September 4, 2001.

Analysis with respect to sections of 35 U.S.C. § 102

A person shall be entitled to a patent unless--

102(a) “the invention . . . was patented . . . in this . . . country . . . before the invention thereof by the applicant”

Analysis: McCloghrie does not qualify as prior art under 102(a) because the invention was invented by Applicant before patenting by McCloghrie, as Applicant’s filing date precedes issue of McCloghrie’s patent.

102(b) “the invention was patented . . . more than one year prior to the date of the application for patent in the United States”

Analysis: McCloghrie does not qualify as prior art under 102(b) because the patent was filed before patenting by McCloghrie.

102(c) “he has abandoned the invention”

Analysis: McCloghrie does not qualify as prior art under 102(c) because Applicant has not abandoned the present invention.

102(d) “the invention was first patented or caused to be patented . . . in a foreign country prior to the date of the application for patent in this country on an application for patent . . . filed more than twelve months before the filing of the application in the United States”

Analysis: McCloghrie does not qualify as prior art under 102(d) because the present invention was not filed in a foreign country before filing in the United States.

Accordingly, Applicant respectfully urges that McCloghrie qualifies as prior art only under 35 U.S.C. § 102(e), 102(f), or 102(g), and therefore is legally precluded from serving as a reference under 35 U.S.C. § 103(a) by operation of 35 U.S.C. § 103(c).

Applicant respectfully urges that Jorgensen has no disclosure of Applicant’s claimed novel use of heuristics in operation of his flow analyzer, as set forth in Claim 1 as: *one or more sets of predefined heuristics that are accessible by the flow analyzer, wherein*

*the flow analyzer applies the one or more sets of predefined heuristics to the one or more flow parameters specified in the reservation requests, and
in response to the application of the one or more sets of predefined heuristics,
the flow analyzer selects a queue and/or a queue servicing algorithm for assignment to the traffic flow corresponding to the reservation request.*

Jorgensen, in contrast to Applicant's claimed novel invention of the use of heuristics, simply extracts data from a packet header, and assigns flows based on the packet header data.

Accordingly, Applicant respectfully urges that Jorgensen is legally precluded from rendering the presently claimed invention unpatentable under 35 U.S.C. § 103 (a) because of the absence from Jorgensen of Applicant's claimed novel

one or more sets of predefined heuristics that are accessible by the flow analyzer, wherein

the flow analyzer applies the one or more sets of predefined heuristics to the one or more flow parameters specified in the reservation requests, and

in response to the application of the one or more sets of predefined heuristics, the flow analyzer selects a queue and/or a queue servicing algorithm for assignment to the traffic flow corresponding to the reservation request.

At Page 7 of the Office Action, Claims 3, 5, 7, 19, and 21 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Jorgensen in view of McCloghrie, and further in view of Martin et al. U. S. Patent No. 6,088,734.

Applicant respectfully notes that Claims 3, 5, 7, 19, and 21 are dependent claims, and are dependent from independent claims which are believed to be in condition for allowance. Accordingly, Claims 3, 5, 7, 19, and 21 are believed to be in condition for allowance.

At Page 8 of the Office Action, Claims 13 and 20 were rejected as unpatentable under 35 U.S.C. § 103 (a) over McCloghrie and Jorgensen.

Applicant respectfully notes that McCloghrie is removed as a reference in this Application for U. S. Patent.

Applicant's claimed invention as set out in representative Claim 13, comprises in part:

13. (Original) In a computer network having a plurality of entities interconnected by a plurality of intermediate network devices having one or more resources for use in forwarding network traffic flows, a method for assigning queues and/or queue servicing algorithms to the traffic flows, the method comprising the steps of:

receiving a reservation request message specifying one or more flow parameters and a given traffic flow;

applying one or more sets of heuristics to the flow parameters of the received reservation request message; and

selecting a queue and/or a queue servicing algorithm for use with the given traffic flow based on the application of the one or more sets of heuristics.

Again, Applicant respectfully urges that Jorgensen has no disclosure of Applicant's claimed novel use of Heuristics, as: *applying one or more sets of heuristics to the flow parameters of the received reservation request message; and selecting a queue and/or a queue servicing algorithm for use with the given traffic flow based on the application of the one or more sets of heuristics.*

Therefore, Applicant respectfully urges that Jorgensen is legally precluded from rendering the presently claimed invention unpatentable under 35 U.S.C. § 103 (a) because of the absence from Jorgensen of Applicant's claimed novel *applying one or more sets of heuristics to the flow parameters of the received reservation request message; and selecting a queue and/or a queue servicing algorithm for use with the given traffic flow based on the application of the one or more sets of heuristics.*

At Page 10 of the Office Action, claims 16 and 18 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Jorgensen in view of McCloghrie.

Applicant respectfully notes that Claims 16 and 18 are dependent claims, and are dependent from independent claims which are believed to be in condition for allowance. Accordingly, Claims 16 and 18 are believed to be in condition for allowance.

At Page 11 of the Office Action, claim 17 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Jorgensen in view of McCloghrie and Galand.

Applicant respectfully notes that 17 is a dependent claim, and is dependent from independent claims which are believed to be in condition for allowance. Accordingly, Claim 17 is believed to be in condition for allowance.

All independent claims are believed to be in condition for allowance.

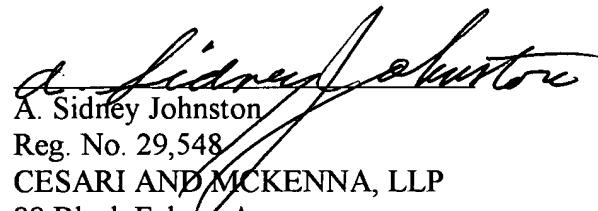
All dependent claims are dependent from independent claims which are believed to be in condition for allowance. Accordingly, all dependent claims are believed to be in condition for allowance.

Favorable action is respectfully solicited.

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Please charge any additional fee occasioned by this paper to our Deposit Account
No. 03-1237.

Respectfully submitted,


A. Sidney Johnston
Reg. No. 29,548
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500